Toward more responsive and effective intervention systems for alcohol-related problems

INTRODUCTION

In a landmark volume, an international team of scholars made a case for 'Broadening the base of treatment for alcohol problems'. [Institute of Medicine (IOM) 1990]. Among other general goals, it called for expanding the continuum of care beyond short-term, abstinence-oriented treatments, creating more services for non-dependent problem drinkers and designing more responsive and better coordinated intervention systems. Building upon these themes in light of the past decade's scientific and clinical progress, this editorial attempts to: (1) translate the above goals into conceptual guidelines and discrete applications that will contribute to the development of more responsive, accessible and complete systems of care; and (2) discuss new directions in applied intervention research that will inform changes in service delivery systems.

The scope of this editorial is limited in two respects. Firstly, it expresses an idealized vision of the future of alcohol intervention rather than dwelling on the significant economic, cultural, political, religious and other barriers to attaining it. Secondly, although a few outstanding cross-cultural, comparative studies of addiction treatment systems have been conducted in recent years (e.g. Klingemann *et al.* 1992; Klingemann & Hunt 1998; Porter *et al.* 1999), the lack of current and complete data on many societies leaves all commentators at times unduly influenced by their own nation's experience, in this case that of the United States.

As context, we preface our proposals for intervention and research with two empirically supported assertions: (1) alcohol problems are best characterized as environmentally responsive behavioral health problems; (2) current systems of care for alcohol problems are often unresponsive to the fact that the affected population is diverse on every dimension relevant to intervention (e.g. problems, resources, treatment preferences, goals, motivations and behavior change pathways). These arguments will be familiar to many readers, but merit adumbration because alcohol intervention systems in many countries have developed without heed to them (Porter *et al.* 1999), even when they were accepted by the local community of scholars.

Alcohol problems are environmentally responsive behavioral health problems. Over the latter half of the 20th century, many nations moved from a moral to a medical view of alcohol problems, often by embracing some variant of the disease model (Klingemann *et al.* 1992; Blomqvist 1998). Such medicalization helped move alcohol problems into the purview of professional health care and applied science, but the limitations of understanding substance abuse solely as a biomedical disorder have been recognized for some time (Curran *et al.* 1987; Pattison *et al.* 1977). Viewing alcohol problems as environmentally responsive behavioral health problems retains the valuable, hard-won alliance with medical services and research, while shifting assumptions about aetiology and behavior change in directions that are better supported empirically. Specifically, it places greater emphasis on extra-therapeutic, environmental forces that shape alcohol misuse. It further recognizes that alcohol problems are unlike acute medical disorders (e.g. infections, broken bones), for which short-term medical treatments can produce lasting improvements without significant changes in patients' behavior or environment. Thus, behavior is inherent in the health problem of substance abuse, rather than merely being a modifier of disease course—as, for example, medication compliance is for the course of HIV/AIDS.

This viewpoint is supported by experimental demonstrations that environmental contingencies affect drinking even among severely dependent individuals (e.g. Bigelow *et al.* 1975), by naturalistic research showing the powerful influence of enduring environmental features (e.g. family, work, love relationships) on the long-term course of alcohol abuse (Bacon 1973; Öjesjö 1981; Edwards 1989; Moos *et al.* 1990) and by studies of how economic, legal and policy factors affect alcohol use and misuse (Bruun *et al.* 1975; Room 1987). Perhaps ironically, additional support comes from genetic research, which indicates that large proportions of the variance in the aetiology and course of alcohol dependence are explained by behavioral and environmental factors (McLellan *et al.* 2000).

Taken together, these findings demonstrate the 'embedded-ness' of alcohol problems within the surrounding environmental context and argue for greater concern with such forces in intervention systems. This

supports conceptual and practical connections across a continuum of interventions that span individual clinical treatments, mutual help and other community-based interventions, and economic and policy initiatives aimed at reducing alcohol-related problems.

Alcohol intervention systems are often unresponsive to the full range of problems, resources, treatment preferences, goals, motivations and behavior-change pathways within the affected population. In most of the 77 countries recently surveyed by the World Health Organization (WHO), the alcohol treatment system is tailored to serve highly dependent drinkers (Porter *et al*. 1999). Although such individuals certainly merit attention, treatment systems targeted solely at them are not responsive, appealing or effective across the population with alcohol-related problems because it is quite diverse on every dimension relevant to intervention.

Several lines of research support this contention. Epidemiological studies show that only a small proportion of persons with problems seeks specialist alcohol treatment services (Marlatt *et al.* 1997). Utilization rates are particularly low among non-dependent problem drinkers, which is unfortunate given that they compose the majority of persons with problems and are responsible for the bulk of alcohol-related harm (Bruun *et al*. 1975; Institute of Medicine 1990). Contrary to some clinical lore, lack of help-seeking cannot uniformly be attributed to denial or to a lack of motivation to reduce problem behavior, because many individuals with problems of all severities eventually reduce or cease problem drinking in the absence of intervention (see Klingemann *et al*. 2002, for an international review of evidence). Along the same lines, every developed nation has voluntary mutual help associations for alcohol problems [e.g. Alcoholics Anonymous (AA), Croix D'Or; see Room 1998; Mäkelä *et al*. 1996]. Given the significant effort that persons with problems expend to create mutual help organizations, even when professional services exist, it seems clear that problem drinkers desire a broader range of alternatives than most current systems provide.

Diversity among people with alcohol problems is also evident in the patterning, time course and outcomes of behavior change efforts (Weisner 1991; Schmidt & Weisner 1993; Tucker & King 1999; Klingemann *et al*. 2002) and in motivations and preferences for services (Klingemann *et al*. 1992; Weisner & Schmidt 1993). For example, some problem drinkers quit on their own or after a single brief intervention, whereas others engage in many treatment episodes over a period of years without achieving stable resolution (Simpson & Tucker 2002). Treatment motivations are also variable, comprising social and legal pressure, desire to reduce alcohol use *per se* and desire to reduce the consequences of drinking (Schmidt & Weisner 1993). Such variegations within the problem drinking population suggests a need to significantly redesign intervention systems that focus primarily on a homogenous subgroup of individuals.

IMPLICATIONS FOR INTERVENTION SYSTEMS

From these orienting concepts, several suggestions follow for how alcohol intervention systems can increase their effectiveness, accessibility and coverage of the continuum of need. Some recommended changes are already occurring at the level of policy (e.g. see Morawski 1992 on Polish treatment policy) and/or practice (e.g. see Zweben & Fleming 1999 on the dissemination of brief interventions in primary care settings). Nevertheless, ample room remains to improve intervention systems even in the most forward-looking societies (Porter *et al*. 1999).

To care for total populations, alcohol intervention systems should be systems in more than name. Caring for a diverse population is a task for intervention systems, but many societies have an uncoordinated 'grab bag' of services that is a system in name only (Klingemann *et al*. 1992). Resource allocation is often driven by political and non-scientific concerns that may not maximize population coverage and positive outcomes (Tucker & Davison 2000).

To promote rational resource distribution that maximizes population impact, the utility of services for a given subgroup should be weighed explicitly in relation to what could be done with the same resources if applied elsewhere along the continuum of need. Leadership and political will are essential to this process, as is a coherent organizing principle, for example the 'stepped care' concept. A 'stepped care' model of service delivery is similar to the way some countries dispense medical care (Sobell & Sobell 1999): specifically that the least intrusive and expensive intervention that is likely to be effective is the first line of treatment, and more intensive services are offered only if the initial step proves inadequate. Limited intervention resources are thus titrated based on need, which departs from historical patterns in some countries (e.g. the United States) to dispense intensive speciality treatment to all help-seekers. We further suspect that such systems will be more effective if problem drinkers have substantial choice concerning at which step they enter the system, rather than being assigned (not to say 'matched') to treatment based solely on professional judgement.

'Extensity' should be prioritized in service provision. The variability in the temporal course of drinking problems strongly suggests that it would be a better investment to expend less healthcare resources during each contact with the client (i.e. be less 'intensive'), thus allowing

intervention to extend over a longer period (i.e. be more 'extensive'). This would be a reversal of the more common practice of expending large amounts of healthcare resource on patients for short periods. This recommendation is especially applicable to individuals with chronic, serious problems, who heretofore have been the heaviest consumers of intervention resources and who are likely to need assistance for lengthy intervals.

This recommendation follows logically from the finding that enduring environmental features influence the course and resolution of drinking problems. If the environment is positive and supportive, a brief intervention can be effective. But as the task of change becomes harder (i.e. dependence is greater), and the environment is less supportive, the intervention itself must become more extensive to compensate. Put another way, if the environment lacks positive enduring features, then the intervention must become one. This is what we mean by 'extensity'.

Some extensive interventions are already widely disseminated. Long-term outpatient treatment, which occurs while the client is dealing with the natural environment, is one such intervention. Another is low-cost, peer-managed, long-term sober residences such as Oxford Houses (Nealon-Woods *et al.* 1995). Less well known but worthy of attention is Mulford's (1979a) innovative community consultation team approach, in which outreach workers link alcohol-dependent individuals to enduring, sobriety-supportive, community resources.

Stout and colleagues (Stout *et al.* 1999) developed another promising extensive intervention, known as 'extended case-monitoring.' Each intervention contact is short (usually 15–30 min) and entails supportive telephone contacts with alcohol abusers and their significant others. During the phone call, the case manager empathizes with current concerns, asks about drinking and makes suggestions for treatment if a crisis or relapse appears imminent. This inexpensive intervention can be continued for years, with the frequency of contacts being tapered over time. Initial evidence indicates that extended case-monitoring can prevent relapses and reduce utilization of intensive services (Hilton *et al.* 2001).

Extensive services such as extended case-monitoring might work well in combination with one of the recently developed medications for alcohol dependence (e.g. Acamprosate) that seem to have some effectiveness (Garbatt *et al.* 1999). If the experience of Western healthcare systems with chronic psychiatric disorders generalizes to alcohol dependence, many people once hospitalized for drinking problems will be treated through long-term medication management. For example, following any needed, brief, social or medical-model detoxification, alcohol-dependent patients will receive a counseling session and medication prescription from a primary care physician or psychiatrist. This will be followed by brief visits to a psychiatric nurse once or twice a month for medication management, with further case-monitoring as needed for a year or two (potentially with co-occurring involvement in a mutual help group). Support would thus be extensive, rather than intensive and transitory.

The voluntary sector (e.g. civic groups, religious organizations) is another important extensive resource, particularly as governments retreat from financing professional alcohol services in many developed nations. Mutual help organizations are usually the most important component of the voluntary sector. AA is the best known, but there are many others around the world such as Blue Cross, The Links, Women for Sobriety, Abstainer's Clubs, Moderation Management and Zenkoku Danshu Renmei (Room 1998). These organizations can engage individuals with serious problems indefinitely, and because they build social relationships and provide social activities, they can alter members' daily environment in lasting ways. Thus, they are a prototypic extensive intervention. They serve both those who need them continuously and those who return intermittently during times of increased risk or crisis.

Two positive developments on this front are worth noting. Researchers have made significant strides in developing effective methods for treatment professionals to link alcohol-dependent patients to self-help groups (for a review, see Humphreys 1999). At the level of policy, nations such as Germany and Canada have been forward-looking in using public resources to strengthen the infrastructure supporting self-help organizations, including referral services and information programs (Hatch & Kickbush 1983).

Systems should enhance the accessibility, appeal and diversity of services. At least four avenues suggest themselves here. Firstly, interventions aimed at drinkers with mild to moderate problems should be disseminated more broadly, particularly brief motivational interventions. The venues for dissemination could include non-speciality healthcare, work-site, school and other community settings. Site selection should take into account the base rates concerning where alcohol problems are likely to surface (e.g. in emergency departments; in comorbid presentation with mental health problems such as depression and anxiety; Weisner & Schmidt 1993), and the availability of local resources for managing alcohol problems once they are identified.

Secondly, telehealth services offer a largely untapped method for reaching problem drinkers who are not in treatment and for monitoring their progress at a distance after they receive an intervention. Technological, ethical and other concerns remain to be resolved (Jerome *et al.* 2000), but telehealth services have obvious potential to

reach a larger percentage of the population in need. Much like AA developed before professional treatments, professional applications using telecommunications systems appear to be lagging behind informal helping sites for substance abuse on the Internet. Greater professional involvement in developing such services could help bring state-of-the-art behavior change technologies that span all phases of the change process to problem drinkers who do not cross the clinical threshold for care.

Thirdly, a wider net should be cast in screening individuals for problems. Active outreach is a cornerstone of public health interventions and contrasts with clinical interventions that wait for patients to present for treatment. For example, alcohol 'check-ups' at shopping malls, while waiting in a doctor's office or on the Internet (Cunningham *et al.* 2000) could provide a non-threatening self-assessment of alcohol-related risks. Tying such assessments to information about helping resources of varying scope, purpose and intensity will be important.

Fourthly, drawing a lesson from the popularity of self-help organizations, thresholds and requirements for receipt of services should be lowered and made more flexible, and treatment services should quickly address the problems that bring clients to seek help. Some societies (e.g. the Netherlands) are leading change in this area by implementing policies such as the following:

- Make interventions available on demand, preferably the same day that clients request help. Initial attendance rates drop quickly with increasing waiting times, but rapid treatment entry does not appear to heighten the risk of subsequent attrition (Tucker & Davison 2000). Many intervention systems do not take into account individuals' shifting motivation between drinking abusively or taking steps to resolve the problem (Mulford 1979b). Rapid treatment entry will make this defining feature of addictive behaviors an ally, rather than an enemy, of treatment engagement.
- Abstinence should not be uniformly required for initial entry into services, even if, for medical or other reasons, it is a critical early treatment goal. Otherwise, some severely troubled individuals for whom ceasing alcohol consumption is very difficult may be prevented from receiving care. More generally, the concept of 'meeting clients where they are', promulgated by advocates of harm reduction, should inform efforts to make alcohol treatment more accessible and engaging to a wide array of individuals.
- Interventions should address swiftly the problems of living that typically bring people to seek help and promote access to valued alternatives to drinking that can compete with it. This contrasts with the exclusive focus of many interventions on alcohol use even if this is not the client's main concern. As emphasized in the brief motivation literature, interventions should be oriented around clients' level and sources of motivation for change, which may not begin with stopping drinking.

Such changes in practice should be coupled with changes in ideas. For example, we recommend dropping the concept of 'drop-out.' Treatment drop-out is a sensible construct only to the extent that treatment is construed as a separate world from everyday life, a distinction that should be minimized. The concept of dropout is no more appropriate to intervention utilization than it is to church attendance: a Roman Catholic who attends mass 5–10 times a year is viewed as a Catholic who attends mass irregularly, not as someone who stops being Catholic many times a year. By the same token, an individual with chronic alcohol problems who has 5–10 irregularly timed visits a year with an extensive alcohol intervention (e.g. case monitoring, outpatient counseling) would be viewed as an irregular user of services, rather than as a repetitive dropout.

Another needed conceptual shift is to view alcohol treatment as a closer cousin of health care and public health than of social welfare and criminal justice, as it is in some countries (e.g. Malaysia, United States; see Curran *et al.* 1987). Doing so should help reduce the stigma that makes alcohol services unappealing to many of those in need and contributes to professional reticence to screen for and treat alcohol problems. To the extent that opinion leaders can create a mind-set that alcohol services are an integral part of health care, intervention opportunities should increase and the stigma of alcohol treatment should be reduced.

IMPLICATIONS FOR THE INTERVENTION RESEARCH AGENDA

The preceding suggestions for changes in practice follow from research findings. We next consider changes in research that follow from our proposed changes in practice. Firstly, the methods and standards applied in alcohol treatment evaluations should be modified; they are not detailed enough in some respects, are overly stringent in others and embody assumptions and values about outcomes that deserve re-consideration. Treatment research 'outcome snapshots', for example the proportion of patients who are abstinent or moderate drinkers at some defined point after treatment (e.g. in the 30 days preceding a 3 month follow-up), do not map well onto environmentally sensitive behavioral health problems that have a chronic course (McLellan *et al.* 2000). Major dependent variables like drinking practices are better assessed in a more continuous, quantifiable fashion throughout the post-treatment interval. Relatedly, the still common

practice of dichotomizing outcome measurement into full remissions with no relapses and 'treatment failures' assumes that single treatment episodes can be expected to permanently and entirely resolve an alcohol problem much as if it were an infection or a broken bone. This approach holds alcohol treatments to a higher standard than interventions for other chronic health problems that have a substantial behavioral component (e.g. obesity, diabetes), where treatment-assisted maintenance of current health status (often involving multiple treatment episodes) is valued in relation to continued likely deterioration in the absence of interventions (McLellan *et al*. 2000). A more realistic assessment of the effectiveness of alcohol treatment should therefore include consideration of the cumulative effects of multiple intervention episodes judged against the natural course of untreated drinking problems of similar severity.

Outcome evaluation would also be improved by routine assessment of the extra-treatment environment (Moos *et al.* 1990) and by the establishment of goals and norms for clinical improvement in light of it. Given that drinking patterns are influenced by enduring natural reinforcers, such as economic situation, friends, family, work and mutual help groups, these variables must be assessed in outcome studies because the effects of interventions will depend on and interact with them.

Our viewpoint also supports a broadened conception of what the 'best' methods are for determining the best treatments. A randomized clinical trial conducted with a homogenized patient sample, idealized treatment conditions, no patient choice of treatment conditions and no consideration of cost or access issues, is a powerful instrument for knowledge construction, but often suffers from a narrow scope of utility (Tucker 1999; Humphreys & Weisner 2000). Controlled trials should be regarded as one of several useful methodological approaches to conducting clinical science, rather than as the best or endpoint treatment evaluation method.

A broader scientific agenda consistent with our perspective would include more naturalistic studies of the processes through which individuals decide to seek help (or not), how they decide between different forms of care and what malleable factors within treatment systems influence the breadth of individuals that they attract and serve (e.g. scope of services, cost, convenience). Such an agenda would also include evaluations of treatment as typically delivered to real-world patient samples, and research on how scientifically supported interventions can be translated into real-world practice settings. Of necessity, investigators who pursue a research agenda so close to real-life systems would have to be cognizant of the political context of evaluation research and anticipate how this may influence the use of their results. For example, findings that mutual help groups are effective for some problem drinkers may be applied too broadly by healthcare payors wishing to cut costs, and too narrowly by treatment professionals wishing to protect their turf.

This agenda must include examination of organizational and seemingly prosaic aspects of intervention systems (e.g. waiting times), which exert significant effects but historically have not been of much interest to academic researchers. This will require researchers to recognize that 'therapy-tinkering' research (e.g. horse-race comparisons or matching research on different psychotherapies) is often of less real-world utility than research on what shapes systems of care, healthcare policies and financing, consumer satisfaction and the environmental contingencies that affect the behavior of all stakeholders, not only the identified clients. From the point of view of the clinical theorist, the differences between Motivational Enhancement, 12-Step Facilitation and Cognitive Behavioral Therapy are enormous and fascinating. Yet, from the point of view of potential consumers, these differences may be trivial. We suspect that decisions to enter treatment are shaped more by convenience, cost, waiting lists, social network reactions and even available parking than by psychotherapists' theoretical orientations. Hence, such variables deserve greater scientific attention.

We have suggested that intervention systems expand the array of available services. In parallel fashion, evaluation research should expand its scope by examining in greater detail the effects of Internet- and telephone-based treatments, extensive interventions, self-change materials, primary care interventions and so forth. Scientists should also devote more attention to natural resolutions and patterns of formal and informal help-seeking, as research on these topics may generate ideas about facilitating positive outcomes in a range of settings.

In conclusion, we wish to offer some perspective. Anyone who has worked in the addictions field knows that because behavior change is often difficult and slow, one needs to take a longer view of the arc of change to avoid being demoralized by intervening setbacks. This insight is no less true of how the field of addictions research and practice changes. Taking such a perspective on the field, we feel optimistic that since the 1990 IOM report, many systems have made significant progress towards building more responsive and effective intervention systems for alcohol-related problems. We hope the strategies and proposals described here will help maintain these changes and build upon them in the future.

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